Ottawa's Great Forest: The South March Highlands

South March Highlands – Carp River Conservation Inc.

[*All photos in this presentation were taken in or of the South March Highlands*]

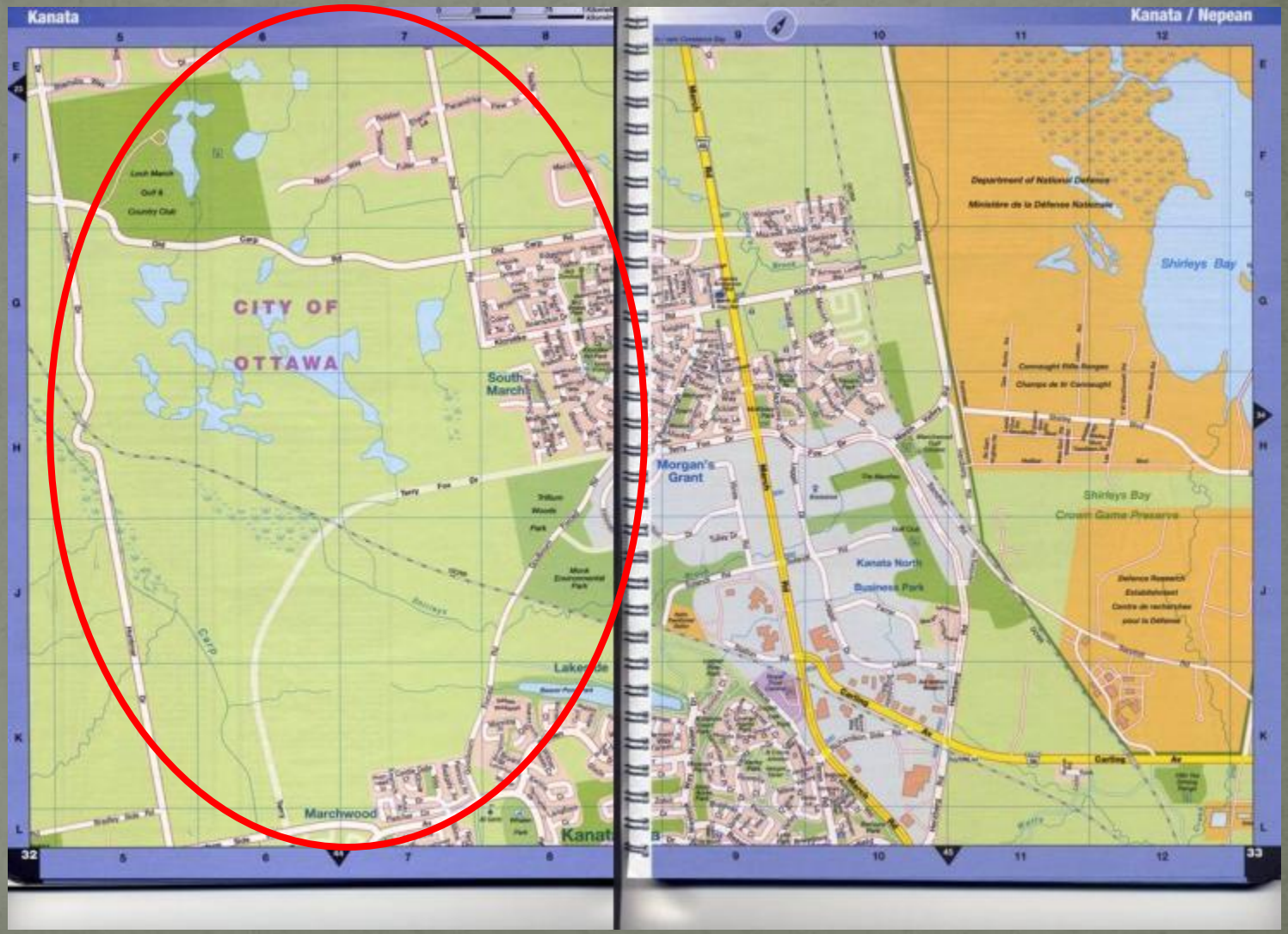
Where are the South March Highlands?

South of March Road

East of Huntmar

West of March Road

North of Where we Are Now



A “Wild Island” Inside Ottawa

10,000 Years Old

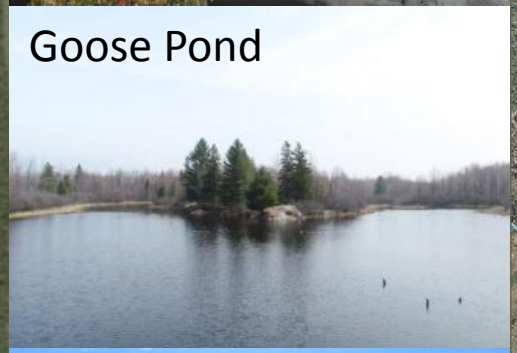
3x Larger Than Stanley Park

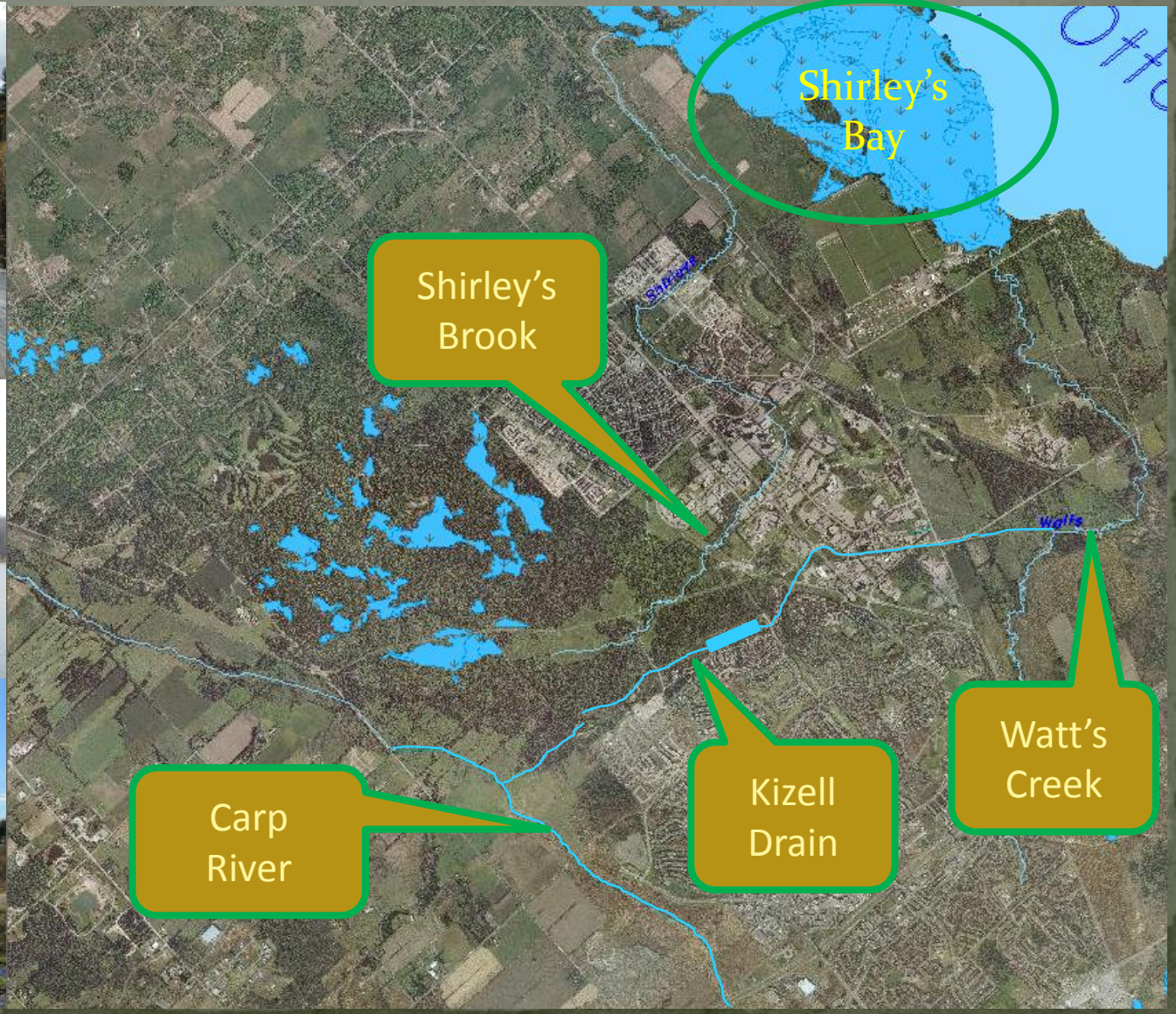
National Capital's 3 Major Eco-Corridors

Transit Systems To The Wild Island

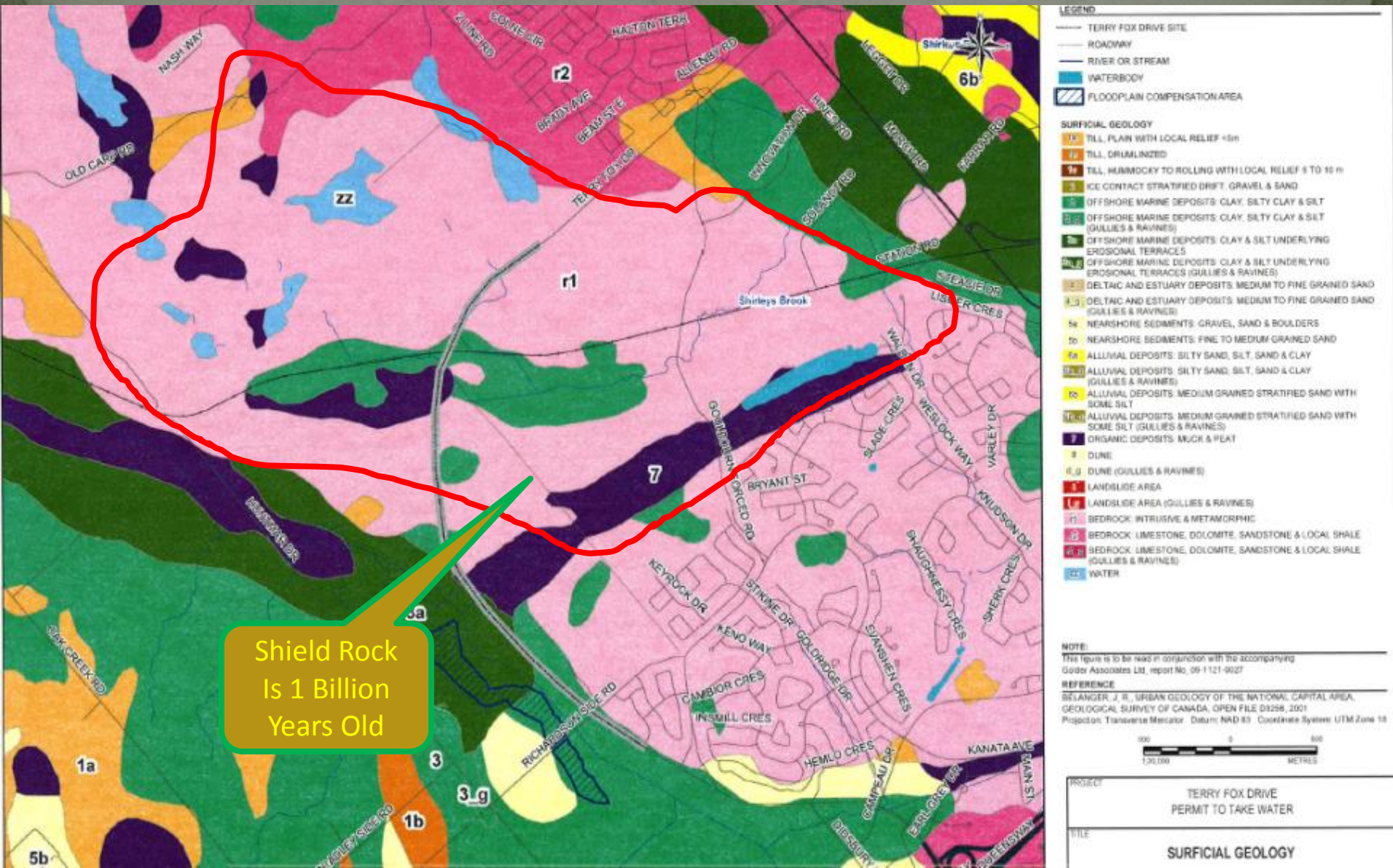
SMH is the Aquifer for North Kanata

Hydrology Affects 3 Sub-Watersheds

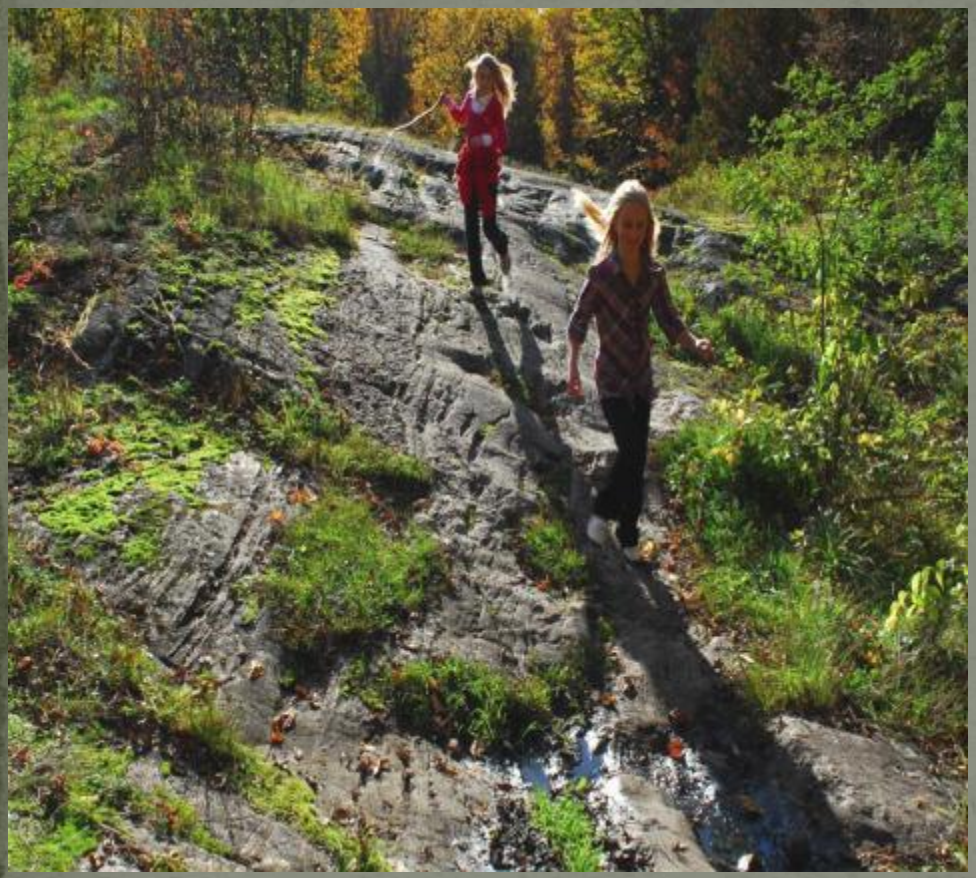




Rich GeoHeritage – Shield Rock is Extensive



Only Location In Ottawa with Exposed Canadian Shield



One of Many Locations Where Shield is Magnificently Displayed

Impressive Even after “Development”

Shield Rock is Always Close To Surface

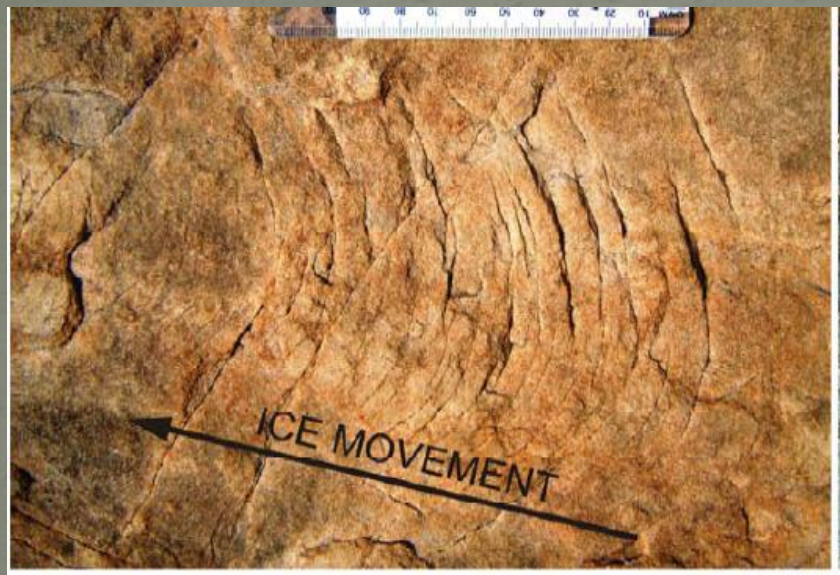
Max Depth of Shield is 1m

Any Development Requires Blasting

Heron Pond's Sandstone Barren Was Once Polished Like a Mirror

500m Long Nepean Sandstone Pavement Barren

Reminders of Ancient Glaciers

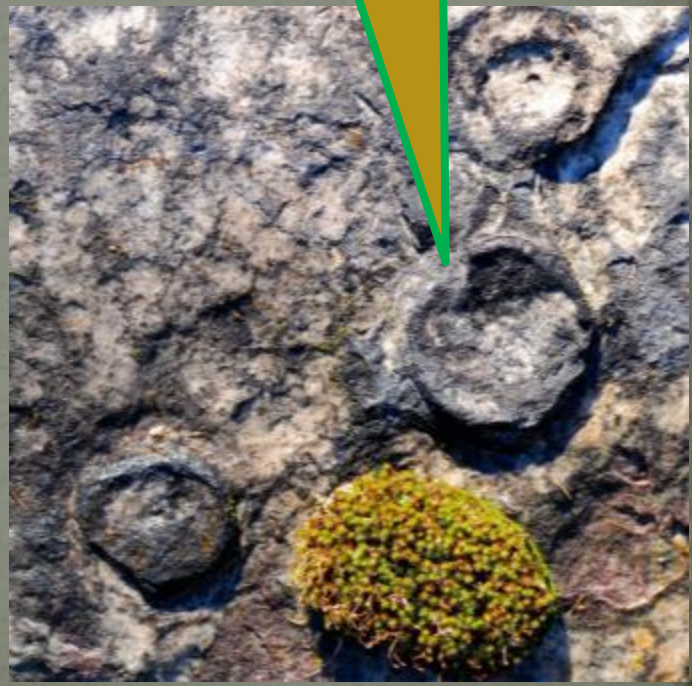


In area B, glacial chatter marks (above); striations (top right) and crescent gouges are evident. Only chatter marks and crescent gouges provide ice movement direction. The striated surface retains a remnant mm-thick glacial pavement of semi-fused quartz grains.

Ancient Sea on Display

A – remnant (symmetrical?) ripple marks; B, C - trough cross beds; D- Eroded Algal mounds? All features suggest a low energy tidal, perhaps estuarine, setting when the area was close to the equator with no vegetation as we know it.

Outlets for Ancient Spring Waters Now Calcified



Distinctive and Unique GeoMorphology

10,000 Year Old Transition Zone

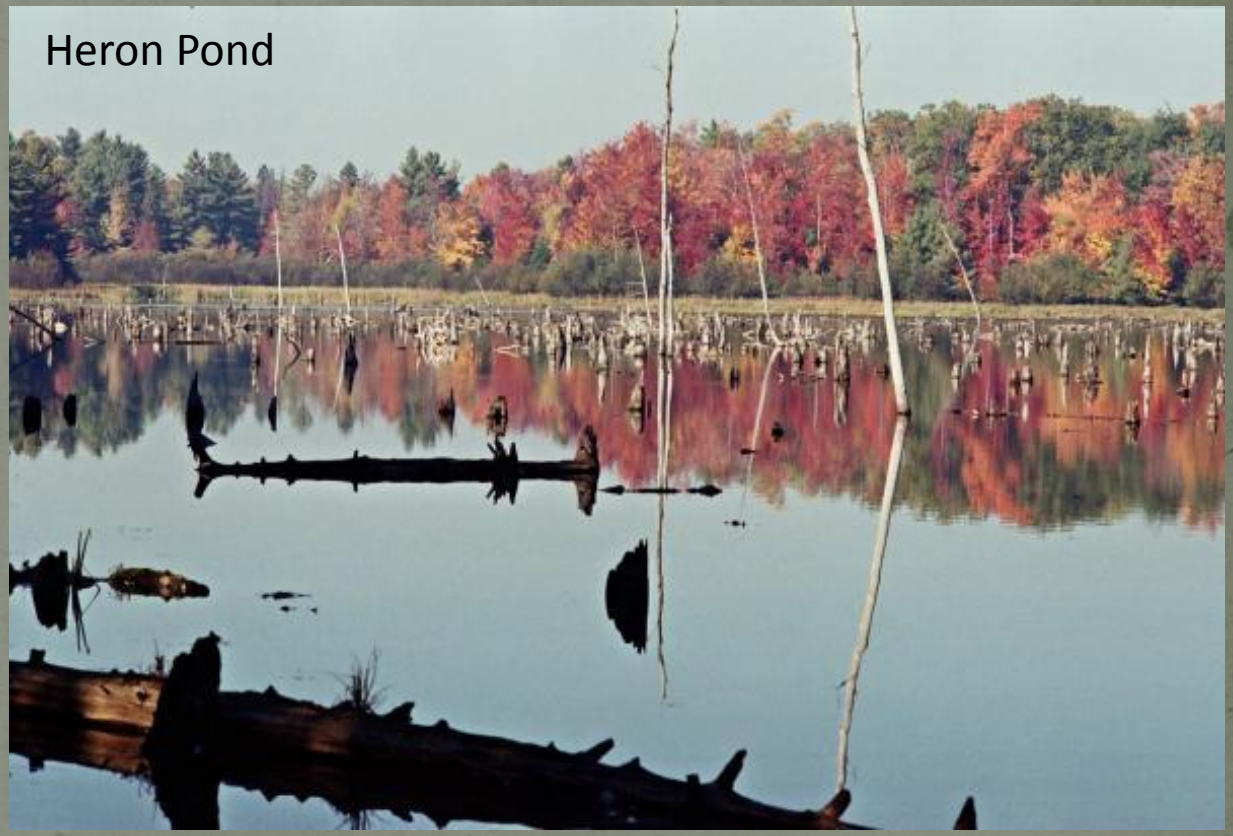
Coniferous

Meets

Deciduous

SMH Saves March Township from 1870 Fire

- 1870 Forest Fire destroyed most of Ottawa Valley
- Highlands and Wetlands of SMH provided critical firebreak
- Signs of that Fire can still be seen today
- Several trees survived the great Fire and are over 130 years old



Old Growth Commonly Found

MNR Technical Handbook: "Old Growth" (pages 45-46)

- ✓ Large proportion of trees in older age classes
- ✓ Many 120 – 140 years old
- ✓ Broad spectrum of tree sizes with some very tall trees
- ✓ Uneven canopy due to fallen trees
- ✓ Abundant fallen logs various stages of decomposition
- ✓ Forest supports a high diversity of wildlife species

Natural Heritage: Densest Bio-Diversity In Ottawa

[Brunton, 2008]

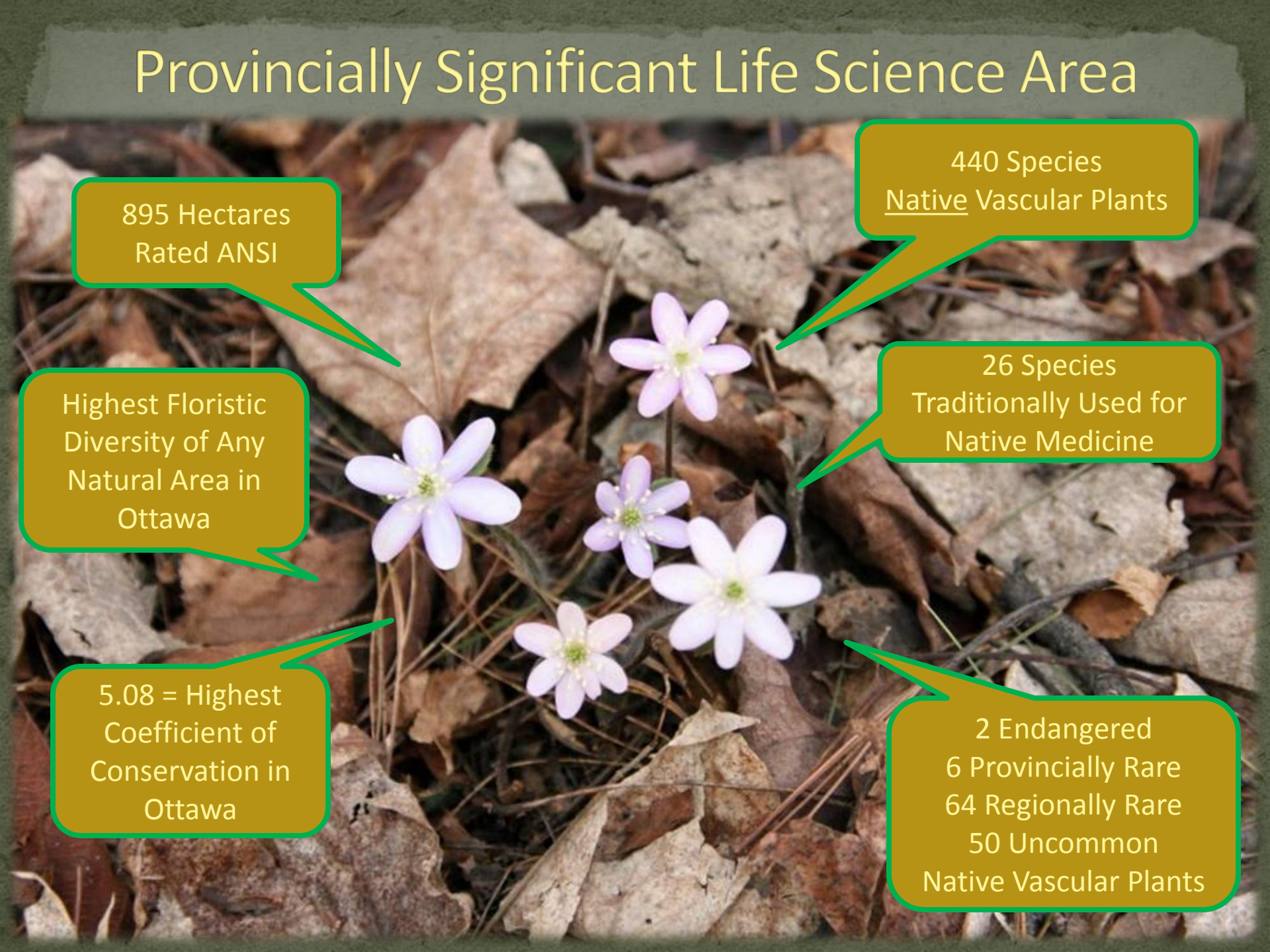
Just Some of the Wildlife Documented

- Red Wolf, Coyote
- Canada Lynx, Red Fox
- Black Bear
- Fischer, Long-tail Weasel
- Beaver, Muscrat
- Ermine, River Otter, Mink
- Snoeshoe Hare, Cottontail Rabbit
- Meadow Jumping Mouse, Deer Mouse, House Mouse, White Footed Mouse
- Meadow Vole, Star-Nosed Mole, Southern Red-Backed Vole
- Barred Owl, Eastern Screech Owl, Great Grey Owl, Great Horned Owl, Long Eared Owl, Northern Saw-whet Owl
- Cooper's Hawk, Red Tail Hawk, Red Shouldered Hawk, Sharp Skinned Hawk, Broad Winged Hawk
- Northern Flying Squirrel
- Silver Haired Bat, Hoary Bat, Big Brown Bat, Little Brown Bat
- Common Shrew, Northern Short-tailed Shrew, Pygmy Shrew, Smokey Shrew
- Blanding's Turtle, Snapping Turtle, Eastern Painted Turtle, Musk Turtle

Largest Deer Wintering Yard In Ottawa

- 875 ha deer habitat

Provincially Significant Life Science Area



Trillium Woods is Part of SMH

"Trillium Woods, which is like a chunk of the Gatineau in the urban landscape of Ottawa, with rich plant and animal life found nowhere else in the urban part of the City"

Ottawa Urban Natural Areas Environmental Evaluation
[Muncaster & Brunton, 2008]

+ Provincially Significant Wetland Complex

136 Nesting Bird Species in the SMH

Undocumented Number of Vernal Pools

Over 26 identified species of Herpetofauna

Monarch Butterfly is Species-at-Risk in South March Highlands

3 Threatened Species
2 Special Concern

Yet No Comprehensive Biological Survey Ever Done

20 Documented Species At Risk

Endangered or Threatened

- American Ginseng
- Butternut
- Loggerhead Shrike
- Bobolink
- Whip-poor-will
- Golden Winged Warbler
- Olive Sided Flycatcher
- Western Chorus Frog
- Blanding's Turtle
- Eastern Musk Turtle
- Chimney Sweep

Special Concern

- Bridle Shiner
- Short Eared Owl
- Black Tern
- Common Nighthawk
- Snapping Turtle
- Eastern Milksnake
- Monarch Butterfly
- Bald Eagle
- Red Headed Woodpecker

18 Candidate SAR Also Found in SMH

- Evening Grosbeak
- Eastern Wood Peewee
- Wood Thrush
- Bank Swallow
- American Bullfrog
- American Kestrel
- Belted-Kingfisher
- Field Sparrow
- Eastern Red-Backed Salamander

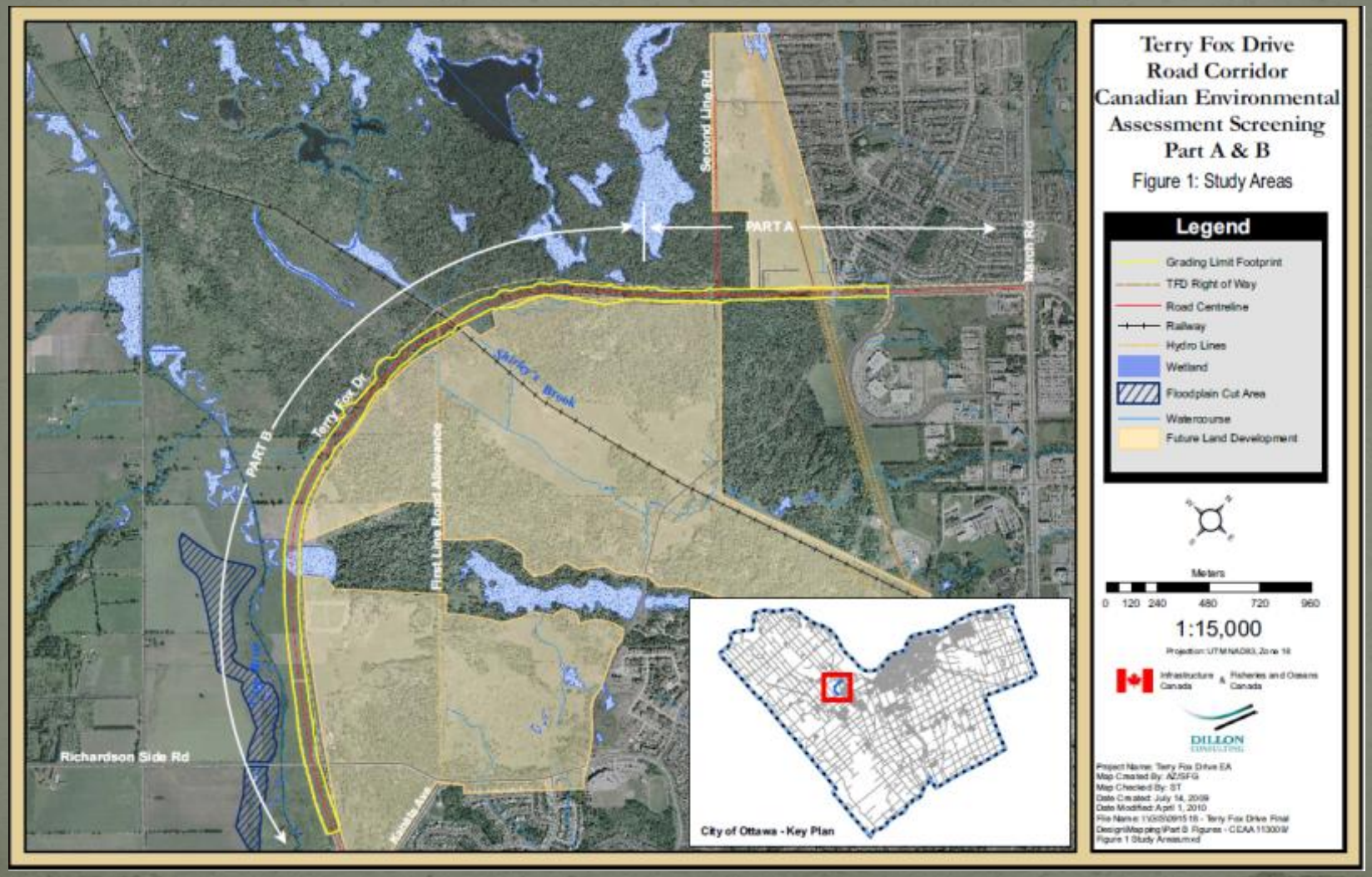
- Blue-Spotted Salamander
- American Toad
- Bluntnose Minnow
- Boreal Chickadee
- Killdeer
- Midland Painted Turtle
- Green Frog
- Wood Frog
- Northern Two-Lined Salamander

11 Species Extirpated By Development

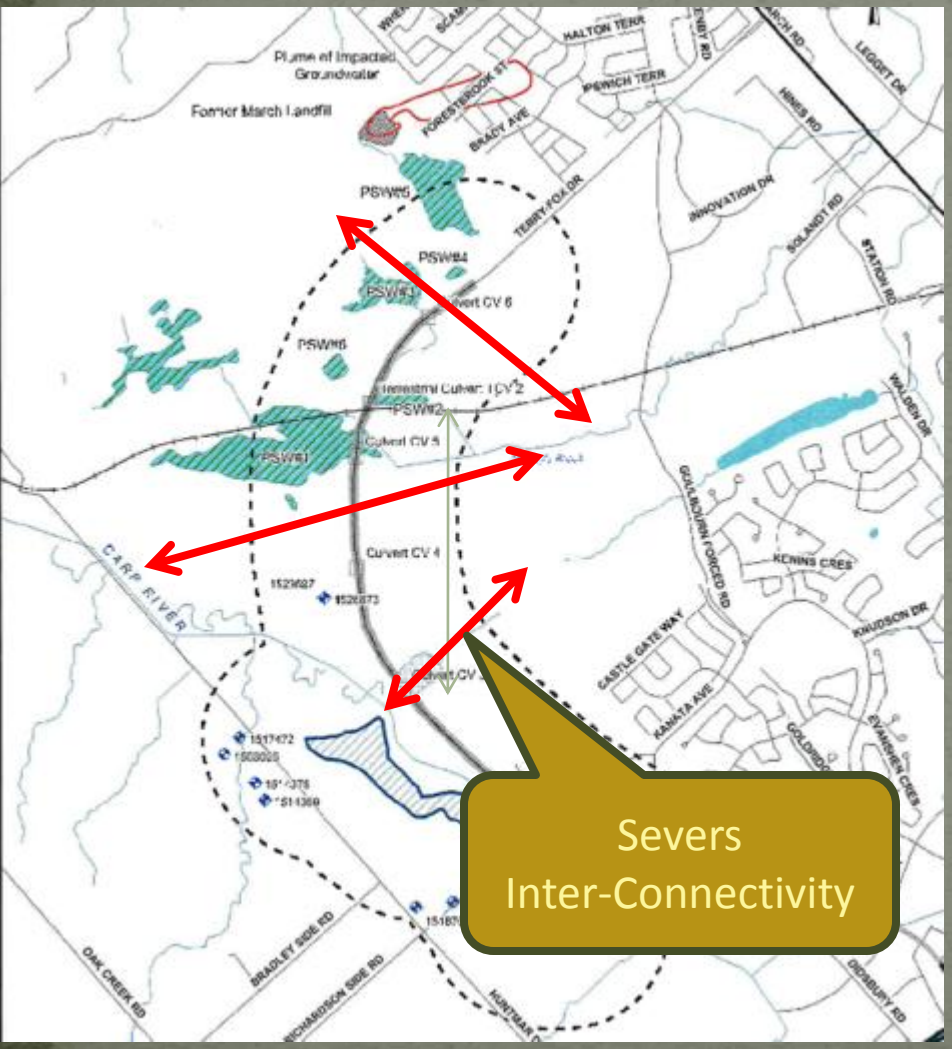
- Cathcart's Woodsia
- Oregon Woodsia
- Spiny Coon-tail
- Adder's-tongue Fern
- Back's Sedge
- Large Duckweed
- Long-spurred Violet
- Showy Orchis
- Southern Arrow-wood
- Strawberry-blight
- Virginia Spring Beauty

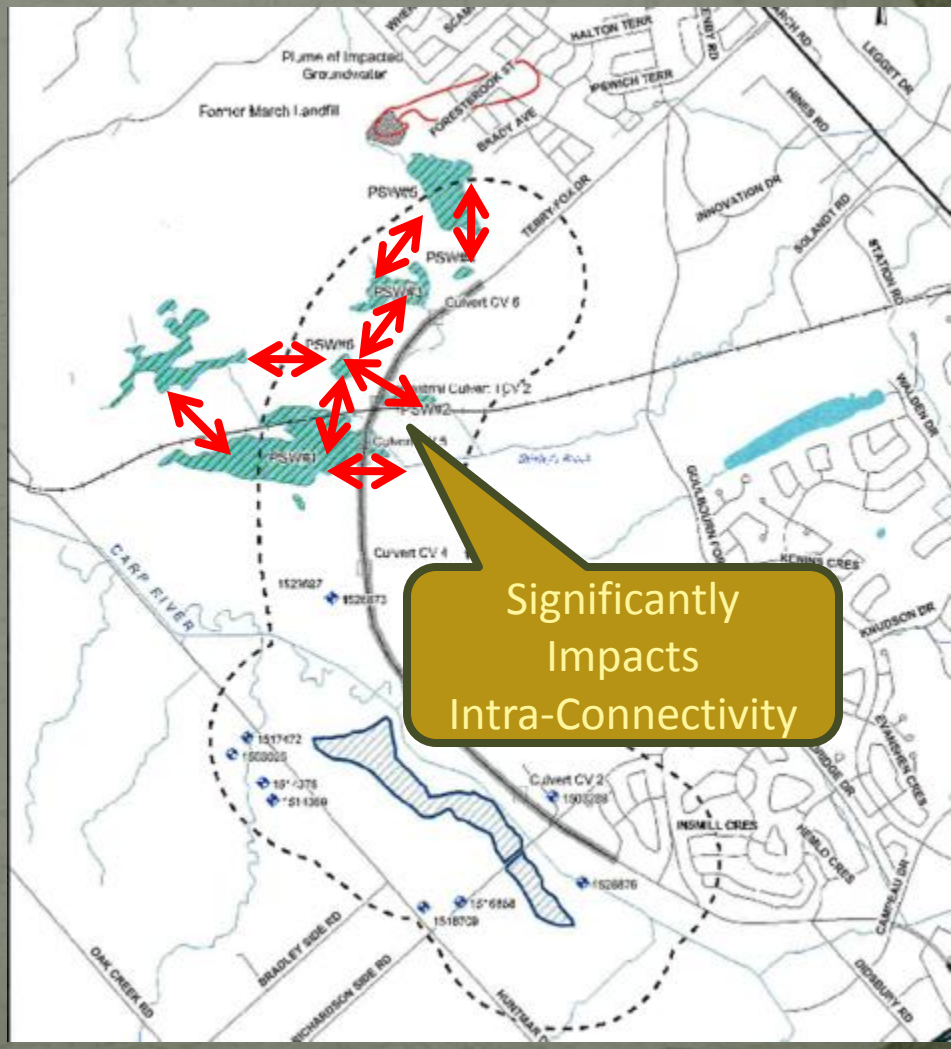
Development Eats Away at Ottawa's Great Forest

Terry Fox Drive Extension Severs SMH by 1/2



Widely Accepted That TFDE Severs Eco-Connectivity

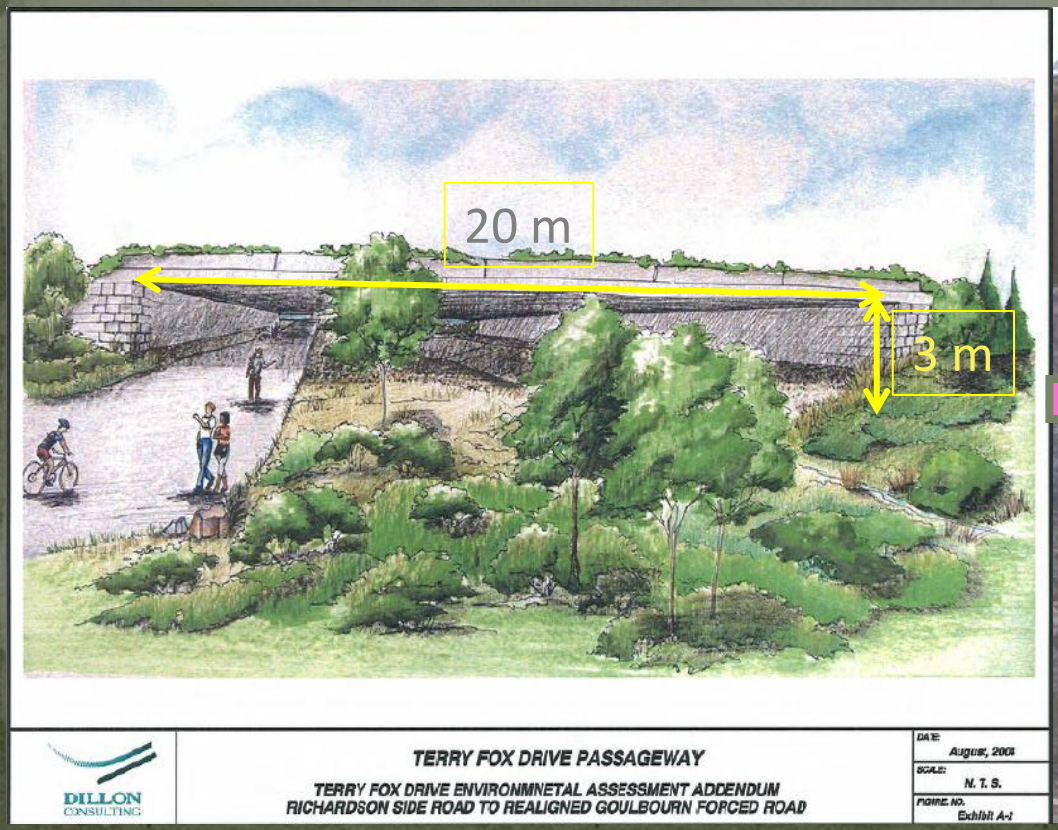


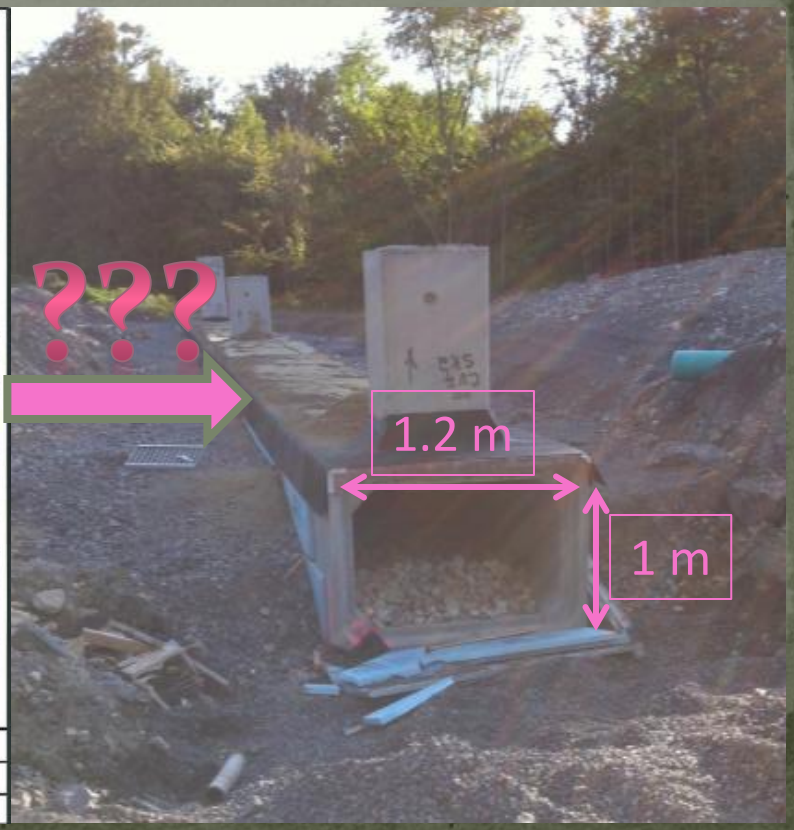


Unmitigated Environmental Impact

- 2007 EA Addendum
  - Promised Eco-passages & No Fencing
- 2010 As-Built Road
  - Eco-passages replaced by low tunnels
  - Fencing creates “Berlin Wall”

Wilderness functions inside the arc of TFDE are choked off from rest of the wild forest

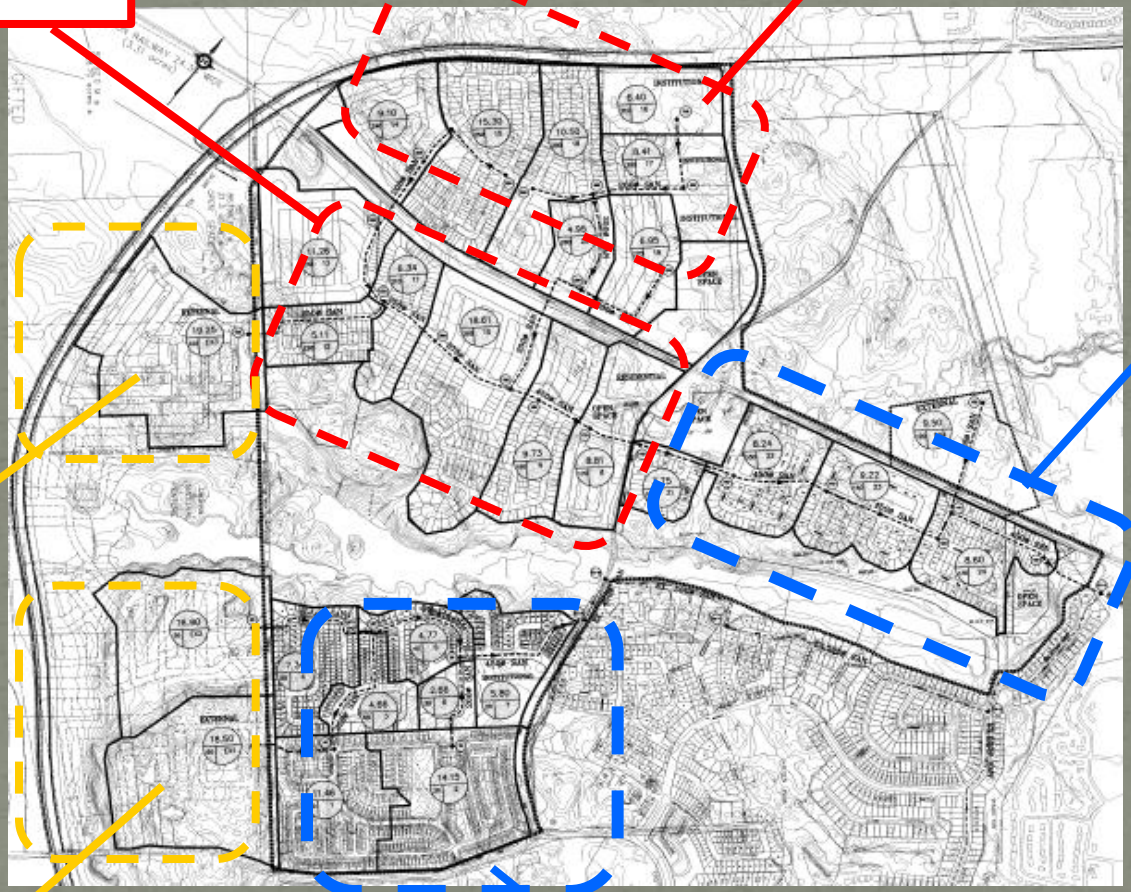




Current Status of Development

KNL Phase 7 (Future)

KNL Phase 8 (Future)



KNL Phase 9 Clearcut (Beaver Pond)

Richardson Ridge Phase II (Regional Group)

Richardson Ridge Phase I Clearcut (Regional Group)

Urbandale & Richcraft In Progress Phases 1 - 6

Impact of Winter Tree Clearing on Wildlife

- Denning mammals are killed by tree-cutting machines
  or
  freeze-to-death
  due to loss of shelter

- Hibernating amphibians & reptiles are crushed by heavy equipment

Green Infrastructure is Multi-Purpose

- Wetland Water Storage & Retention
  - Equivalent Storm Water Retention & Management would cost $Millions to replace
- Replenishment of Natural Resources
  - $2 M / year for cleaning Air & Water, pollination, resisting invasive species [based on Suzuki Foundation estimate]
- Educational & Artistic Value
  - $0.3 M / year reduced travel cost for school field trips
- Recreational & Eco-Tourism Value
  - $25 M / year increased economic value from 1% of 7.8 M visitors staying 1 extra day to explore Ottawa's Great Forest

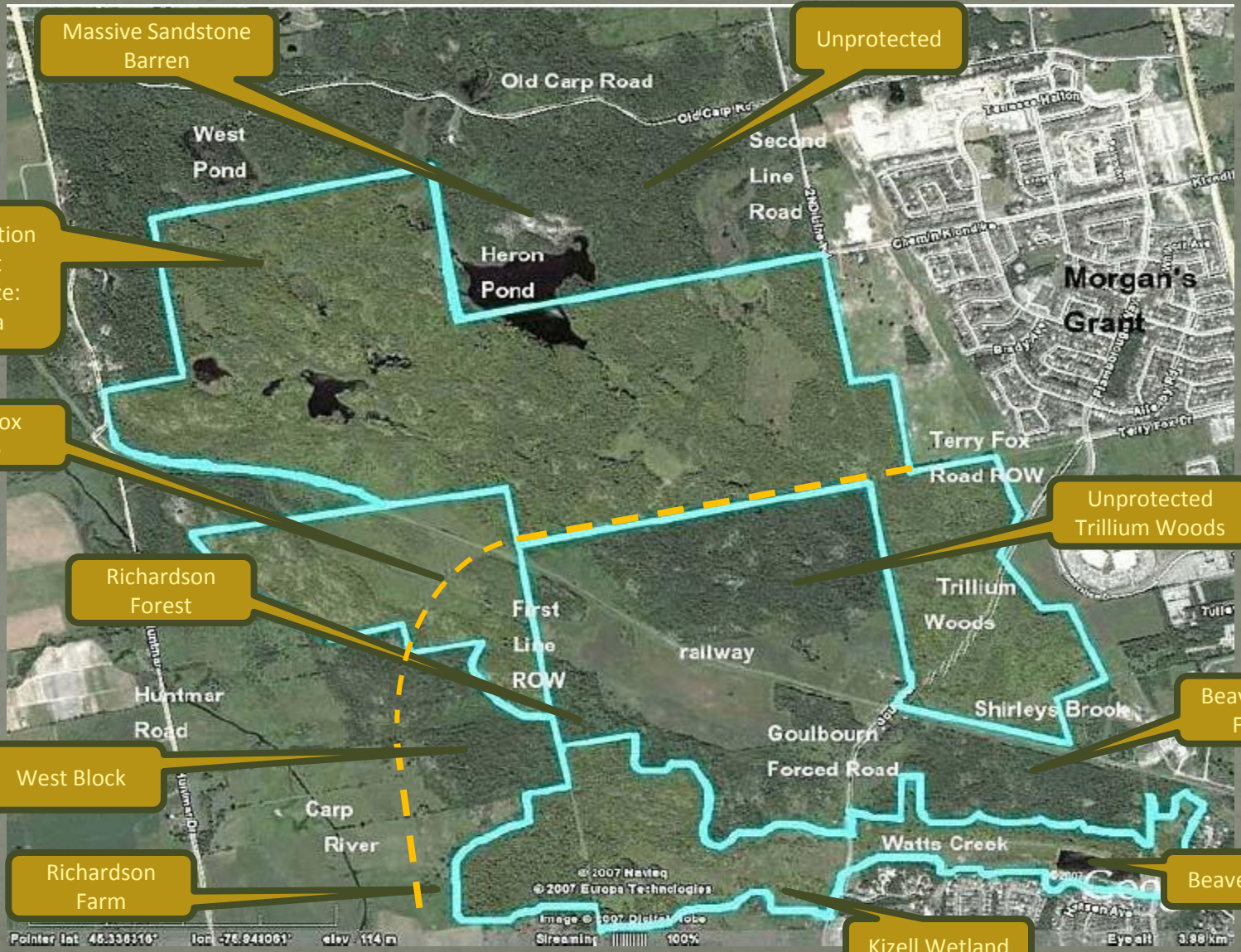
“Developed” Infrastructure is Single Purpose

- “Development” transforms multi-purpose landscape to a single purpose
  - Housing
  - Commercial, etc.
- “Developed” Infrastructure must be rebuilt / repaired periodically
  - Roads, Bridges
  - Subdivisions
  - Storm Water Management Facilities
  - Construction = Temporary job creation
- Green Infrastructure is perpetually replenished by nature
  - Forests, Wetlands, Streams & Ponds
  - Eco-tourism = Permanent jobs
  - Green Infrastructure continues to deliver clean Air and Water that would otherwise be lost by “development”

Terry Fox Dr
July 24, 2009

Will You Help Save This Forest?

South March Highlands



Located Just Beyond Current Greenbelt Corridor

Currently Excluded from 3 working Concepts for Greenbelt Master Plan

“Shepherd’s Hook” Extends Greenbelt

Alternative Vision of Eco-Corridors Revitalizing The Emerald Necklace